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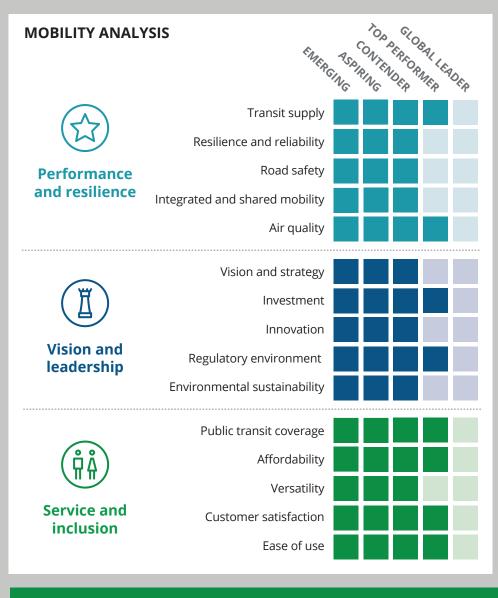
Deloitte City Mobility Index





Analysis area: 2,705 km² | Population: 4,485,211(2016) | Population density: 1,658/km²

Definition of analysis area: Melbourne Urban Centre and Locality area as defined by Australian Bureau of Statistics



KEY MOBILITY STATISTICS

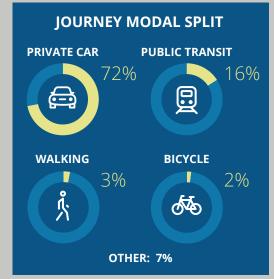
Tram, bus, rail Public transit options

67 hours/year Time spent in congestion

\$112 Average public transit pass/month \$171 billion GDP (OECD report, 2013)

Major transit authority
Public Transport Victoria (PTV)

Note: All dollar amounts are in USD



FUTURE OF MOBILITY ANALYSIS

Melbourne



Significant work to do

Passive environment, a number of barriers

Proactive environment, some barriers

Proactive environment, few barriers FoM global leader

STRENGTHS

- A number of open data portals and APIs on transport metrics available
- Interregional trials of autonomous vehicles (AVs) with new legislation planned
- Existing smart payments system in place

CHALLENGES

- Few car alternatives and limited modal options in the increasing urban region
- Large urban sprawl makes it hard to achieve infrastructure development across the urban area
- Expensive public transportation system as compared to other cities



Key focus areas to improve city mobility and realize the Future of Mobility:



Explore demand management to reduce congestion and vehicle emissions



Implement data analytics solutions to understand and manage the holistic network better



MOBILITY ANALYSIS FURTHER DETAILS:



Performance and resilience

Melbourne is struggling to meet demand for public transportation; trains are overcrowded. Moreover, high use of private vehicles causes road congestion and high emissions.

- Demand for public transit options: The city has witnessed a 70 percent and 30 percent increase in demand for heavy rail and light rail, respectively, in the last decade.
- Poor public transit performance: The public transit system is overcrowded and subject to frequent breakdowns and
- Too many cars: In response to Melbourne's dependency on private cars and growing congestion, in 2017 the state government introduced a traffic congestion charge and increased the parking tax to 70 percent.



Vision and leadership

Melbourne has a clear transportation strategy to tackle its challenges, particularly around private car dependency, by 2030.

- Average sustainability scores: High car use was behind these numbers, but the city's initiatives to increase active travel modes are working; cycling in inner Melbourne doubled between 2001 and 2011.
- AV buy-in: Melbourne is embracing a future with autonomous vehicles. Beginning in 2017, it plans to test AVs on city roads for two years.
- Electric vehicle (EV) adoption is slow: Barriers include low infrastructure readiness, the high purchase price, and a lack of government subsidies.



Service and inclusion

Melbourne has excellent security and an easy-to-use transport network. Yet affordability and inclusivity are low and may prevent many citizens from accessing a range of employment options.

- · Low affordability: The high cost of fuel leads to the city ranking low on affordability; this is compounded by a relatively expensive public transport system.
- Inadequate accessibility: The geographic spread of the greater urban area is only partially covered by reliable public transit.
- Customer satisfaction: Levels are high. reflecting a secure and easy-to-use network, but one that is not necessarily accessible by all.

SUMMARY

Similar to other Australian cities, Melbourne faces the challenges of large urban sprawl and an underdeveloped public transport system that has led to a car culture and the resultant congestion. The existing public transit system provision has a number of flaws: It is unreliable and suffers many breakdowns and delays; it also lacks sufficient geographic coverage to reach all citizens and it is expensive.

Melbourne has acknowledged its challenges and is preparing to resolve them with an ambitious program of investments in infrastructure. When combined with a supportive regulatory environment, these investments can help place Melbourne at the forefront of the Future of Mobility.

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About the Deloitte City Mobility Index

The Deloitte City Mobility Index reviews major cities on key aspects of mobility and the resulting relationship to economic performance. Drawing on publicly available data, client conversations, and bespoke Deloitte analyses, we assess each city's ability to transport its citizens both now and in the future and therefore its potential to bring prosperity to the city.

As we receive feedback, we will update and expand the analysis, which may mean the results shown in this document may change.

For the full interactive index, visit the Deloitte City Mobility Index at deloitte.com/insights/mobility-index.

For Deloitte's insights on the Future of Mobility, visit deloitte.com/insights/future-of-mobility.

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